MAKING DATA SMART

Qsan F600Q 8G FC-6G SAS High Availability Systems

Qsan's storage systems are designed for high availability, non-stop and mission critical services, applications demanding high IOPS / throughput, and flexible storage planning with cost effectiveness for small and medium enterprises solutions.

Intel® Ethernet

Highlights

- Fully redundant & hot pluggable designs: RAID controllers, power supplies, fan modules, battery backup modules, & JBOD expansion
- Four (4) 8G FC ports & Two (2) iSCSI ports per controller
- Green storage designs: auto disk spin down, advanced cooling mechanism, & 80 PLUS energy-efficient power supplies
- Advanced data protection: RAID 6, 60, QSnap writeable snapshot, Windows VSS support, QReplica remote replication, Volume cloning
- Flexible volume management for multiple applications & environments: virtualization (VMWare, Hyper-V, Citrix), cloud storage, SQL, Exchange, surveillance, file backup, email, boot from SAN, & etc
- High connection availability: load balancing & failover
- Extendable capacity up to 192 hard drives

High Availability

F600Q 8G FC system is specially designed for high availability applications. The F600Q has fully redundant components including redundant RAID controllers, power supplies, fan modules, battery backup modules and SAS JBOD expansion ports. All of these components are hot-swappable to create a high availability platform and provide non-stop services. Special features in firmware are RAID 6, 60 support, QSnap writable snapshot, Windows VSS support, volume cloning, QReplica remote replication, and volume configuration restoration. All these features are designed to add an extra layer of protection to your valuable data. To raise the bar higher, F600Q can upgrade firmware without system down time. Both firmware image and volume handling are well protected by the redundant RAID controllers. When one RAID controller is down or disconnected, the other RAID controller will take over all tasks immediately and seamlessly.

Outstanding Performance

The F600Q's powerful RAID controllers provide much higher IOPS and throughput than other storage systems within the same segment in the current market. The F600Q can minimize your cost and optimize your investment, simplify storage planning, and integrate more applications.

Applications

The optimized IOPS and throughput are capable of providing run-time critical online services, such as Cloud storage, SQL, Exchange, and high-end surveillance storages. Furthermore, with the 8G FC interface, F600Q is ideal for virtualization environments - VMWare, Hyper-V, and Citrix. Users can install up to 126 OSes in the 8G FC system through the Boot-from-SAN feature. With this feature, the multiple OSes/Servers can be managed easily and well protected by Qsan's advanced data protection features, and there will be no system downtime caused by single point of failure.

Green

All F600Q system has Qsan's default power saving feature. In most cases, the hard drives consume most power. With the auto disk spin down feature and proper configuration, the power consumption of hard drives can be reduced to a minimum, and users will not even notice this feature. F600Q monitors the environment temperature for cooling mechanism and the fan modules respond accordingly. The power supply modules are all 80 PLUS power efficient for better power converting rate. In virtue of the reduction of hard drive power consumption, the advanced cooling mechanism, and the energy-efficient power supplies, we can use energy more efficiently and reduce unnecessary carbon footprint.

Default Built-In Data Protection Features

The F600Q systems are built-in with Qsan's highly reliable data protection features, from writeable snapshot, volume cloning, to remote replication. Your valuable data can be easily safeguarded and synchronized locally and remotely. In case of accidents, data corruption, virus, and even disasters, the services and applications can be recovered in a very short time.

Ordering Information

Controller Configuration

F600Q-D424 F600Q-D316 F600Q-D224 F600Q-D212	Dual controllers	F600Q-S424 F600Q-S316 F600Q-S224 F600Q-S212	Single & upgradable controller

Optional Components

6G MUX Board	SATA drives support	8GB RAM	8GB RAM support

F600Q-D424 F600Q-S424	F600Q-D316 F600Q-S316	F600Q-D224 F600Q-S224	F600Q-D212 F600Q-S212

Hardware Components

RAID Controller	Dual controllers Single upgradable controller	Dual controllers Single upgradable controller	Dual controllers Single upgradable controller	Dual controllers Single upgradable controller
No. of Host Channels Per Controller	4 x 8Gb/s Fibre Channel 2 x 1Gb/s iSCSI	4 x 8Gb/s Fibre Channel 2 x 1Gb/s iSCSI	4 x 8Gb/s Fibre Channel 2 x 1Gb/s iSCSI	4 x 8Gb/s Fibre Channel 2 x 1Gb/s iSCSI
Expansion Enclosure	J300Q series	J300Q series	J300Q series	J300Q series
Cache Memory Per Controller	4GB with battery backup for 72 hours protection. Up to 8GB	4GB with battery backup for 72 hours protection. Up to 8GB	4GB with battery backup for 72 hours protection. Up to 8GB	4GB with battery backup for 72 hours protection. Up to 8GB
No. of Hard Drives (6Gb/s SAS/SATA)	24 x 3.5"	16 x 3.5"	24 x 2.5"	12 x 3.5"
Max. No. of Hard Drives	192	192	192	192
Power Supply	3 x 500W	2 x 500W	2 x 500W	2 x 500W
Fan	2	2	2	2
Dimensions	4U 19" Rackmount 446.0 x 499.5 x 176.0 mm (W x D x H)	3U 19" Rackmount 446.0 x 499.5 x 130.0 mm (W x D x H)	2U 19" Rackmount 446.0 x 542.0 x 88.0 mm (W x D x H)	2U 19" Rackmount 446.0 x 499.5 x 88.0 mm (W x D x H)

Feature Highlights

Green	Auto disk spin down Advanced cooling mechanism 80 PLUS energy-efficient power supplies	
Host Interfaces: 8Gb Fibre Channel iSCSI	**Fibre Channel:** FCP-2 & FCP-3 support Role-based access control / Active directory Up to 126 multiple nodes support Up to 128 hosts support Up to 1024 sessions per controller	**iSCSI:** Jumbo frame Header/Data digest CHAP authentication Virtual LAN Role-based access control / Active directory Up to 32 multiple nodes support Up to 32 hosts support Up to 128 sessions per controller
RAID & Volume	RAID level 0,1,0+1,3,5,6,10,30,50, 60, JBOD, N-way mirror Up to 4096 logical volumes Up to 64 hard drives per volume group One logic volume can be shared by as many as 16 hosts Global and dedicated hot spare Write-through or write-back cache policy Online volume expansion Instant RAID volume availability Auto volume rebuilding Online volume migration without system down time	
High Availability	Dual-active RAID controller Cache mirroring through high bandwidth channels Flexible RAID group ownership management Management port seamless take-over Online firmware upgrade, no system down time Multi-path & load-balancing support (Microsoft MPIO, MC/S, Trunking, LACP)	
Advanced Data Protection	QReplica remote replication QSnap writable snapshot Volume cloning Microsoft Windows Volume Shadow Copy Services (VSS) Configurable N-way mirror Online disk roaming Instant volume restoration Hot pluggable battery backup module (BBM)	
Management	QCentral Java-based centralized management software LCM; Serial console; UPS console; SSH telnet; HTTP Web UI; Secured Web (HTTPS); LED indicators; iSNS; S.E.S.	
Notification	Email; SNMP trap; Browser pop-up windows; Syslog; Windows Messenger	
OS Support	Windows Server 2003; Windows Server 2003R2; Windows Server 2008; Windows Server 2008 R2; Red Hat Enterprise Linux 5; Solaris 10; Mac OS X	
Virtualization	VMware Ready; Hyper-V; Citrix Ready	
Safety / EMI	RoHS, CE, FCC, BSMI, UL, cUL	
Warranty	System: Three years Battery backup module: One year	

Requirements

AC Input	100-240V ~ 7A-4A 500W with PFC (Auto Switching)
DC Output	3.3V-25A; 5V-32A; 12V-40A
Operating Temperature	0 to 40°C
Relative Humidity	5% to 95% non-condensing

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